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INSTITUTIONAL ASSESSMENT AND ACCREDITATION (Effective from July 2017)

Accreditation - (Cycle -3)

PEER TEAM REPORT ON

INSTITUTIONAL ACCREDITATION OF
JIS COLLEGE OF ENGINEERING (AUTONOMOUS)
C-6260
West Bengal
Kalyani
741235

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL An Autonomous Institution of the University Grants Commission P.O. Box No. 1075, Nagarbhavi, Bengaluru - 560 072, INDIA

Section I:GENERAL INFORMATION		
1.Name & Address of the institution:	JIS COLLEGE OF ENGINEERING (AUTONOMOUS) Kalyani West Bengal 741235	
2.Year of Establishment	2000	
3.Current Academic Activities at the Institution(Numbers):		
• Faculties/Schools:	2	
Departments/Centres:	8	
Programmes/Course offered:	12	
Permanent Faculty Members:	211	
Permanent Support Staff:	67	
Students:	2675	
4.Three major features in the institutional Context (As perceived by the Peer Team):	 Committed Management, faculty and staff Good infrastructure facility Institution making all possible efforts to provide education to the students coming from rural areas. 	
5.Dates of visit of the Peer Team (A detailed visit schedule may be included as Annexure):	Visit Date From: 08-04-2022 Visit Date To: 09-04-2022	
6.Composition of Peer Team which undertook the on site visit:		
Chairman:	Shailendra Jain	
Member Co - ordinator:	Rhymend Uthariaraj Vaidyanathan	

Member:		Rajaprakash B M
	NAAC Co - ordinator:	Dr. Shyam Singh Inda

Section II: CRITERION WISE ANALYSIS

Observations (Strengths and/or Weaknesses) on each qualitative metrices of the key Indicator under the respective criterion(This will be a qualitative analysis of descriptive nature aimed at critical analysis presenting strength and weakness of HEI under each criteria)

Criterion1 - Curricular Aspects (Key Indicator and Qualitative Metrices(QIM) in Criterion1)	
1.1	Curriculum Design and Development
1.1.1 QIM	Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in Programme outcomes (POs), Programme Specific Outcomes(PSOs) and Course Outcomes(COs) of the Programmes offered by the Institution.
1.2	Academic Flexibility
1.3	Curriculum Enrichment
1.3.1 QIM	Institution integrates crosscutting issues relevant to Professional Ethics ,Gender, Human Values ,Environment and Sustainability into the Curriculum
1.4	Feedback System

JIS College of Engineering (established by JIS Foundation in the year 2000) is an autonomous institution. JIS College of Engineering is approved by AICTE, New Delhi and is affiliated with Maulana Abul Kalam Azad University of Technology, West Bengal. The Institute presently offers Seven undergraduate programmes namely Civil Engineering, Mechanical Engineering, Electrical Engineering, Biomedical Engineering, Electronics & Communication Engineering, Computer Science Engineering & Information Technology. It also offers and four Post Graduate Programmes in Engineering and one in Business Administration.

The curriculum design focus on engineering Skill development, Leadership Capability and Domain Specific Knowledge. This process addressed the Local, National, Regional and Global Development. The curriculum design is also in consonance with the **AICTE Model Curriculum**. Academic and Industry professionals along with alumni are included in development of curriculum by participating in **BoS** and **Academic Council** (AC). Programme outcomes (POs), Programme Specific Outcomes(PSOs) and Course Outcomes(COs) of the Programmes offered by the Institution are stated and published on the website. The curriculum is blended with theory and practical as per the academic requirements; some additional Laboratory classes are organized; it may be conducted more effective so that students can gain more practical knowledge.

Time table is framed with provision for inclusion of value added courses. Some value added courses are conducted to fill the gaps in the curriculum; however, more focus is needed to be given by all the departments. Learning management system LMS is in practice and FLIP classes are effectively conducted.

The curriculum is designed to integrate cross-cutting issues like environmental science, Professional Ethics and human values. Awareness about these are imparted through courses on environment & elementary biology, environmental science, environmental studies, environment & ecology, values and ethics in profession and values & ethics. The efforts made by the college to integrate cross cutting issues related to Gender, Climate change, Environment issues is evident. Inplant trainings organized for the students in the nearby industries during the vacation.

(Ke _j	Criterion2 - Teaching-learning and Evaluation (Key Indicator and Qualitative Metrices(QlM) in Criterion2)	
2.1	Student Enrollment and Profile	
2.2	Catering to Student Diversity	
2.2.1 QIM	The institution assesses the learning levels of the students and organises special Programmes for advanced learners and slow learners	
2.3	Teaching- Learning Process	
2.3.1 QIM	Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences	
2.3.2 QIM	Teachers use ICT enabled tools including online resources for effective teaching and learning process.	
2.3.4 QIM	Preparation and adherence of Academic Calendar and Teaching plans by the institution	
2.4	Teacher Profile and Quality	
2.5	Evaluation Process and Reforms	
2.5.3 QIM	IT integration and reforms in the examination procedures and processes including Continuous Internal Assessment (CIA) have brought in considerable improvement in Examination Management System (EMS) of the Institution	
2.6	Student Performance and Learning Outcomes	
2.6.1 QIM	Programme and course outcomes for all Programmes offered by the institution are stated and displayed on website and communicated to teachers and students.	
2.6.2 QIM	Attainment of programme outcomes and course outcomes are evaluated by the institution.	
2.7	Student Satisfaction Survey	

The Students' learning ability is identified through an induction program and performances in internal assessments. Based on learning ability, they are classified as slow learners and advanced learners. Slow learners are paired with advanced learners in group activities to create a healthy and conducive environment. Slow learners are provided with extra remedial classes and soft skill training. Advanced learners are motivated to work with slow learners in practical hours, splitting them for group activities, mapping them for projects. Advanced learners are motivated to participated in NPTEL/SWAYAM online courses, group activity for assignment/Project, Add-on courses and provided advanced training. The Institute helps the advanced learners in participating international internships.

To implement the student centric methods for enhancing their learning experiences the concept of Flipped learning, project-based learning and experiential learning etc. have been used. The Flipped learning activities are divided into Pre-Class, In-Class and Post-Class and embedded in the curriculum.

For enhancing learning experience and independent learning, the college provides a library having adequate books, journals and ejournals. Campus is enabled with Wi-Fi facility. The institute focuses on practicing the theoretical concepts by conducting more Labs/mini projects. The students are also encouraged to take online lectures through NPTEL/SWAYAM and video lectures.

There is a language lab, but considering the background of the students, there should be rigorous soft-skill development program to be initiated, some innovative methods for teaching and learning are practiced in few departments.

The Institute strictly adheres to the academic calendar for the conduct of internal examinations, practical examinations and end semester examinations along with the vacation period before the commencement of each semester. Academic calendar is published on the Institute website for easy access of stakeholder. Based on the academic calendar departments plan for functioning of co-curricular and extra-curricular activities.

Digital evaluation system has been implemented for examination process. An integrated end-to-end Examination Management System is practised. The system is equipped backup disaster recovery plan.

The programme and course outcomes are prepared displayed in the student hand book and are well discussed by the faculty in the class rooms and submitted as a part of the course file. The institute has adopted Outcome Based Education system which improvises the learning experience of the graduates. The Course Outcome(CO) Program Specific Outcome(PSO) and Programme Outcome(PO) are evaluated through Direct and Indirect assessment methods. The attainments of program outcomes, Program Specific Outcome and course outcomes are to be evaluated and analysed. Analysis of attainment of program outcomes and level of attainment is monitored.

Criterion3 - Research, Innovations and Extension (Key Indicator and Qualitative Metrices(QIM) in Criterion3)	
3.1	Promotion of Research and Facilities
3.1.1 QIM	The institution's Research facilities are frequently updated and there is a well defined policy for promotion of research which is uploaded on the institutional website and implemented
3.2	Resource Mobilization for Research
3.3	Innovation Ecosystem
3.3.1 QIM	Institution has created an eco system for innovations, creation and transfer of knowledge supported by dedicated centers for research, entrepreneurship, community orientation, Incubation etc.
3.4	Research Publications and Awards
3.5	Consultancy
3.6	Extension Activities

3.6.1 QIM	Extension activities are carried out in the neighbourhood community,-sensitising students to social issues, for their holistic development, and impact thereof during the last five years
3.7	Collaboration

The institute has a research & development cell which helps the students and faculty to carryout research activities. R&D policy for the promotion of research is in place and also published in the Institute website.

Seven COE added during the assessment period. However, the concept of COE need to be further strengthened. A research collaboration is established with Russian Federation. For the academic research, few research laboratories are created. The concept of Centralized instrumental centre with some advanced research equipment exit. Faculty members utilize these facilities for research activities. Laboratories need to be upgraded on a regular basis.

The Institute has established Innovation Cell and renamed as Institutional Innovation Council (IIC). The Council organizes a number of Leadership talks, awareness about patent, granting and copyright generation along with all prescribed activities of Ministry of Education-Innovation Cell. The IIC of the Institute has received 4 Star ranking in 2018-19 and 5 Star ranking in 2019-20. The Innovation activities of the Institute have been recognized through ARIIA ranking 2019-20. (among first 50 self-financed Institute). The Institute has been selected as MSME host Institution for exploring incubation and start up prospects of the students and the nearby society. As a result of this, the Institute published 85 IPRs, out of which 4 granted during the reporting period. Using the innovation cell, two Start-ups incubated and one MSME UdyogAdhar and started as company. The Institute has produced some notable entrepreneurs to the industrial front. However, more initiatives to harvest to its full potential is the need of the hour.

The institute has shown keen interest in institutional social issues. The institute has both NSS & NCC cells. The Institute has adopted five villages under Unnat Bharat Abhiyan (UBA) of Govt. of India. The students are engaged in Go Green activities, Cleanliness Drives, nation's Swachch Bharat Abhiyaan, Unnat Bharat Abhiyaan, Environment Day celebration, Jal Diwas and other programs of Government of India. The students and staff take part in tree plantation drive to the neighbourhood community. The students and staff participate in organizing programs to bring awareness among the public in neighbourhood areas on social issues like blood donation camp, health check-up camp, awareness about road safety, providing information about farm technology and awareness about air pollution through NSS. The college organizes socio-technical event every year. The NCC wing conducts 'World Yoga Day', 'World Youth Day' celebrations annually.

(Ke	Criterion4 - Infrastructure and Learning Resources y Indicator and Qualitative Metrices(QIM) in Criterion4)
4.1	Physical Facilities
4.1.1 QIM	The Institution has adequate infrastructure and physical facilities for teaching- learning. viz., classrooms, laboratories, computing equipment etc.
4.1.2 QIM	The institution has adequate facilities for cultural activities, yoga, games and sports (indoor & outdoor); (gymnasium, yoga centre, auditorium, etc.,)
4.2	Library as a Learning Resource
4.2.1 QIM	Library is automated using Integrated Library Management System (ILMS)
4.3	IT Infrastructure
4.3.1 QIM	Institution has an IT policy covering wi-fi, cyber security, etc., and allocated budget for updating its IT facilities
4.4	Maintenance of Campus Infrastructure
4.4.2 QIM	There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.

The institute has good facilities for teaching-learning process. The institute has enough ICT enabled class rooms, equipped with teaching aids, like LCD projectors, smart boards and Wi-Fi enabled facilities. Each department is provided with tutorial class rooms and a Flipped Class rooms. The Institute also has an exclusive room for NPTEL courses and smart class rooms in each department. Uninterrupted power supply is provided to the academic environment, and to all laboratories. Sufficient number of laboratories available according to the curriculum. They are also utilized for the conduct of value—added courses, mini projects and practicing beyond curriculum activities. The Institute also has extended teaching-learning facilities through Tata technologies Lab, IIT Remote centre, Nanoscience lab, CAD-CAM lab, 3D printing Lab and Skill Development Centre. Institute provides good number of computing equipment with campus networking. A full-fledged Digital studio is developed for the creation of flipped class course content.

The institute provide facilities for cultural activities, namely 'Kabi Pranam', 'Bijoya Sammaloni', 'Cultural feast', 'JIS Idol', 'Fashion Show' etc. Students participate cultural activities in different levels and won medals and prizes. The institute has good facilities for sports and games. Playground facilities for sports such as football with goalposts, cricket, volleyball, 200m round track for Athletics, Long jump, Shotput, Javelin throw, Discuss throw, etc. Also facilities for indoor games like carom, table tennis, shuttle cock, Snooker and chess available. Students participate in many sports and games at inter collegiate levels. The winners are felicitated by the college at Gymkhana day event. There is a Yoga facility. There is a Gymnasium open for the staff/students. The Institute has 2 auditoriums with audio-visual facilities.

The college has a Central library. Library system is automated using LIBSYS. Web-based OPAC module is used for resource retrieval. The library has web-based library management software, LibMan to streamline the library operations. Library has taken membership of DELNET and is making efforts to enrich the library. The Library is a member of the NDLI. Library has subscription for some journals and few of them are on-line. The average number of walk-in per day need to be increased. The Library is equipped with scanner for document scanning. However, a mechanism is to be incorporated to weed out the obsolete books.

The institution provides IT services like Campus networking using the wired and Wi-Fi connectivity. The institution provides 1.5 Gbps bandwidth and a secured network by implementing Institutional IT security policies. The institute provides 3 to 5% of the annual budget for upgradation of IT facilities. The major computing equipment's Like Servers, Firewalls are under annual maintenance. The institute looks after repairing and maintenance of the campus facilities including building, classrooms, laboratories, RO plants, generators supported by a Maintenance cell under the control of the Management.

(Ke	Criterion5 - Student Support and Progression / Indicator and Qualitative Metrices(QIM) in Criterion5)
5.1	Student Support
5.2	Student Progression
5.3	Student Participation and Activities
5.3.2 QIM	Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the institution
5.4	Alumni Engagement
5.4.1 QIM	The Alumni Association / Chapters (registered and functional) contributes significantly to the development of the institution through financial and

Qualitative analysis of Criterion 5

The institute has a Student Council with selected members to nurture students' leadership quality. The institutional toppers are appointed as the executive members of the Student Council. Students representatives are actively participated in different student bodies like Anti-Ragging Committee, Mentoring for Ragging Prevention & Anti-Ragging Squad, Hostel & Canteen Management Committee, Women Cell, Science Club, Computer Society Club, Engineering & Modelling Club, Photography and Trekking Club, Environmental & Educational Club, Art and Literary Society and Music Club. The department students' association in all the departments are active. Participation of students from other states is noticed.

It is evident that the institute encourages the Co-curricular and extracurricular activities. The students organize many cultural events through which students express their talents and take part in cultural activities. Students also participate in various academic related committees and express their academic requirements. Class Review Committee having faculty as mentor and student as representative is in place.

The Institution has an Alumni Association which has formally registered. The Alumni Association meets annually and helps in connecting the student's fraternity, organizing social events, Career Guidance, Networking & Mentoring, Entrepreneurial Assistance and helping in placement opportunities. The feed backs of Alumni help to grow the institution in a positive direction. Some financial contribution from the alumni during the last five years.

	riterion6 - Governance, Leadership and Management / Indicator and Qualitative Metrices(QIM) in Criterion6)
6.1	Institutional Vision and Leadership
6.1.1 QIM	The governance of the institution is reflective of an effective leadership in tune with the vision and mission of the Institution
6.1.2 QIM	The effective leadership is reflected in various institutional practices such as decentralization and participative management.
6.2	Strategy Development and Deployment

6.2.1 QIM	The institutional Strategic / Perspective plan is effectively deployed
6.2.2 QIM	The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment, service rules and procedures, etc.
6.3	Faculty Empowerment Strategies
6.3.1 QIM	The institution has effective welfare measures for teaching and non-teaching staff and avenues for career development/ progression
6.4	Financial Management and Resource Mobilization
6.4.1 QIM	Institution conducts internal and external financial audits regularly
6.4.3 QIM	Institutional strategies for mobilisation of funds and the optimal utilisation of resources
6.5	Internal Quality Assurance System
6.5.1 QIM	Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes visible in terms of — Incremental improvements made for the preceding five years with regard to quality (in case of first cycle) Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives (second and subsequent cycles)

The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms and recorded the incremental improvement in various activities

6.5.2 QIM

(For first cycle - Incremental improvements made for the preceding five years with regard to quality

For second and subsequent cycles - Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives)

Qualitative analysis of Criterion 6

The institute has a committed management having strong focus on growth and development of the institution. The Institute's focus and core ideology is reflected in its Vision, and Mission statements. The overall administration is administrated by the Board of Governors (BOG) which is integrated with Internal Quality Assurance Cell (IQAC), Planning Cell, Academic Council (AC) and Board of Studies (BOS).

The institute has a decentralized and transparent mechanism in management, administration, financial and academic affairs. The Principal is assisted by Deans, HODs, Administrative Head, and coordinators of various cells/committees in decision-making process. The faculty members participate in functional committees actively.

The institute prepares a perspective plan for five years and followed. The Recommendations of the NAAC pre-visit has been implemented.

The board of governors administers the institutional performance and approve the policies presented by the Principal who heads the institute. The Principal has democratic setup having both the HODs, and faculty member in-charge of different cells/ centre. The appointment rules, service rules, leave rules, Procedures for Promotion and financial procedures are transparent.

The institute has effective welfare measures for teaching and nonteaching staff. The management has policies for the welfare of the students, teachers, and supporting staff for schemes such as ESI, Group Insurance, Gratuity provision and medical facility. The institute has effective mechanism on empowering and rewarding the Teaching and

Non-Teaching staff. The process of awards and rewards based on the performances exists. Every faculty member is encouraged to undergo periodic training / development programs for their career development.

The institute has the provision of internal audit as well as external audit conducted by the CA nominated by the management committee. The institute has carried out internal and external timely manner and no serious financial irregularity reported.

The Institute is mainly depending on the tuition fee of the students. The institute has limited resource generation through consultancy, sponsored project, testing and conduct of short-term courses etc. The strategy for financial resources mobilisation needs to be implemented effectively.

The Institute has created IQAC cell as per UGC norms and taking steps for effective implementation. Activities like alignment of the curriculum with industry requirements and Academic Audits have been taken through IQAC. Long term quality improvement initiatives identified.

The IQAC reviews the teaching learning process and learning outcomes at periodic intervals. Incremental improvements made for the reporting period with regard to quality and post accreditation quality initiatives are visible. Two major quality initiatives are (i) Implementation of outcomebased education & measure the learning outcomes, and (ii) Adoption of digital pedagogy in the form of Flipped Learning.

	Criterion7 - Institutional Values and Best Practices (Key Indicator and Qualitative Metrices(QIM) in Criterion7)	
7.1	Institutional Values and Social Responsibilities	
7.1.1 QIM	Measures initiated by the Institution for the promotion of gender equity during the last five years.	

7.1.3 QIM	Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 500 words) • Solid waste management • Liquid waste management • Biomedical waste management • E-waste management • Waste recycling system • Hazardous chemicals and radioactive waste management
7.1.8 QIM	Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 500 words).
7.1.9 QIM	Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens (within 500 words).
7.1.11 QIM	Institution celebrates / organizes national and international commemorative days, events and festivals (within 500 words).
7.2	Best Practices
7.2.1 QIM	Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual.
7.3	Institutional Distinctiveness
7.3.1 QIM	Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words

The Institute is supervised by CCTV cameras in all the main places. Common Rooms to the students exists. Women Grievance Cell, Antiragging cell, Internal complaint committee exist to empower and safe

quard the rights of female staff members as well as the students. Day care centre is present in one room of the Girls' Hostel to look after the young children of the staff members during the office hours.

Power backups are available through DG sets and solar lights exists in the campus. solar energy sources. Efforts are also made for management of various types of wastes say Solid waste, Liquid waste and E-waste and a waste recycling system.

The Institute has taken care on sensitizing and ambience of crosspollination of communal, socioeconomic, regional and linguistic diversities through a number of club activities. Tolerance, integrity, cultural, linguistic, and socio-economic harmony are achieved through the celebration of rituals like Swaraswati Puja, Holi, Shivratti, Buddha Purnima, Poila Baisakh, Rath Yatra, Rakhi Purnima, Janmasthami, Eid al-Fitr, EId ul Zuha, Vijaya Sammilani, Diwali, Guru Nanak Gurpurab, Christmas Day and Founder's day.

The faculty, staff, students & employees are sensitized about various constitutional obligation by arranging special lectures and seminars on constitutional obligations: values, rights, duties and responsibilities of citizens by the Institute.

The College organises national festivals like Independence day, Republic day, sadbhavna divas etc. and birth days of great personalities like Mahatma Gandhi, Jawaharlal Nehru, Indira Gandhi, Swami Vivekananda, Ambedkar etc., for the benefit of faculty and students of the institute. The college also celebrates Engineers day every year.

Institute focus on Best institutional practices. First one is to facilitate Innovation through Research and collaboration for translating domain expertise into products or technologies through Centre for Innovation, Incubation and Entrepreneurship. The second is to ignite the student's skill and talents, by Igniting Young Minds with the Spirit of Innovation. This helps to ignite the innovation of the students and improve their talent pool.

The institute identify and promote the Implementation of Digital Pedagogy in the form of Flipped Learning as the distinctive area based on its Vision.

Section III:OVERALL ANALYSIS (based on Institutional strengths.Weaknesses,Opportunities & Challenges(SWOC)(up to 500 words))

Overall Analysis

- 1. Proactive and committed management for the growth and development of the college
- 2. Dedicated faculty members
- 3. The institute has good infrastructure.
- 4. The college has large number of students clubs and societies for conduct of technical events and innovative programs.
- 5. Use of Flipped Class Room
- 6. Efforts on innovation through Institutional Innovation Council

Section IV:Recommendations for Quality Enhancement of the Institution

(Please limit to ten major ones and use telegraphic language)
(It is not necessary to indicate all the ten bullets)

- Measures to attract more quality students
- Further improvement of research environment
- Alumni association may be further activated to harvest their potential
- To improve the economic viability of the needy students, the institution may introduce the projects like "Earn while Learn"
- Industrial experiences / exposure are recommended for faculty/ students
- Establishment of incubation center with Industry collaboration in a much focused way
- Long-term perspective plan and strategic planning for the growth and development of the College to be more focused
- Faculty members of all the departments to undertake more Research Projects in emerging interdisciplinary areas
- More focused attention to be given to impart communication and personality development for the students
- Development of industry sponsored center of excellence

I have gone through the observations of the Peer Team as mentioned in this report

Signature of the Head of the Institution Seal of the Institution

Signature of the Peer Team Members:

Sl.No	Name		Signature with date
1	Shailendra Jain	Chairperson	
2	Rhymend Uthariaraj Vaidyanathan	Member Co- ordinator	
3	Rajaprakash B M	Member	

NAAC Co-ordinator Dr. Shyam Singh Inda 4 Place: Date